

REMARKS/ARGUMENTS

Favorable reconsideration of the present application is respectfully requested.

Claims 7, 9, 12, 13 20, 22, 23 and 25-28 have been allowed.

Claim 4 has been rewritten in independent form.

Claims 1-6, 8, 11, 14-19, 21 and 24 have been rejected under 35 U.S.C. §112, first paragraph because of an apparent conflict between the description in the specification of maximizing the grip of each wheel and minimizing the effective road friction. In response, the specification and rejected claims have been amended to instead recite uniformly maximizing the grip margin of each wheel. Basis for this amendment is present in the Japanese priority applications 2003-24177 and 2003-385973 whose disclosures have been incorporated by reference into the present application, particularly at the 56th and 65th paragraphs of JP '177 and the 63rd and 72nd paragraphs of JP '973. The amendment therefore corrects a translation error and has basis in the original disclosure.

More particularly, when the effective road friction γ of each wheel can be uniformly minimized all the time, motion performance allowing the greatest robustness against disturbances such as a road surface or cross wind can be obtained (page 28, lines 10-14). This is because the road friction of each wheel is far from its maximum, i.e., the grip *margin* of each wheel is then maximized. Accordingly, the present amendment is believed to overcome this rejection.

Claims 1-3, 8, 11, 14-16, 21 and 24 were again rejected under 35 U.S.C. §102 as being anticipated by U.S. patent 6,885,931 (Awnar). Claims 1 and 14 now respectively recite a vehicle control method and apparatus including a step or means of calculating a first physical quantity for substantially uniformly maximizing the grip *margin* of each wheel. Awnar discloses a yaw stability control system based on a linearized vehicle model and a predictive control algorithm. According to equations 31-34 of Awnar, a control torque T to

be applied to the wheels is calculated based on a control yaw moment M_z and a desired yaw rate R . There is no description of controlling the braking torque according to a control variable which is calculated based upon a physical quantity for substantially uniformly maximizing the grip *margin* of each wheel.

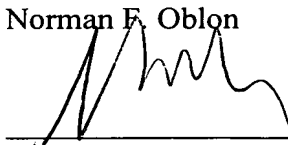
Additionally, in Awnar (Figs. 2A-2B) *only one* wheel is considered in determining a steering wheel angle and whether the vehicle is under-steering or over-steering. In contrast, the present invention substantially uniformly maximizes the grip margin of, and controls, *each* wheel.

Applicants note that the Office Action takes the position that Awnar discloses calculating a "physical quantity relating to the tire force of each wheel." Significantly, however, the Office Action does not allege that Awnar discloses calculating a physical quantity for substantially uniformly maximizing the grip of each wheel, much less the presently claimed step of calculating a physical quantity for substantially uniformly maximizing the grip *margin* of each wheel. Applicants therefore respectfully submit that the amended claims clearly define over Awnar.

Applicants therefore believe that the present application is in a condition for allowance and respectfully solicit an early notice of allowability.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon



Robert T. Pous
Registration No. 29,099

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413-2220
(OSMMN 06/04)
RTP/rac